271 determinations),[175] we will resolve whether to initiate a rulemaking proceeding to extend the date for the termination of the eligibility restrictions.

b. Review of Assignment and Transfer Applications

114. Second, we note that, even after termination of the eligibility restrictions, the Commission's rules relating to the assignment and transfer of LMDS licenses will provide us with an effective tool to ensure that proposed license acquisitions by incumbent LECs or cable operators will not, in particular cases, be inconsistent with the pro-competitive policies that guide our licensing of LMDS and that led to our establishment of the eligibility restrictions. Our rules regarding the assignment or a transfer of an LMDS license require prior Commission approval.[176] Therefore, in connection with our review of any such proposed assignment or transfer, we intend to examine whether such an assignment or transfer would promote or impede our pro-competitive policies. Specifically, some of the factors we intend to consider in determining whether a particular market actually is sufficiently competitive, at the time of the application for an assignment or transfer, are:[177]

(1) the number and capacity of competing providers of local telephone or multichannel video services, especially those with independent means of distribution, that are available to a significant number of consumers in the geographic region at issue;

(2) the substitutability of the services of those competing providers with the local telephone and multichannel video services offered by the incumbent LEC or cable firm;

(3) evidence as to whether the LEC or cable company could or would lose a significant portion of its subscribers to its competitors if it unilaterally increased its prices or lowered the quality of its services;

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[175] 47 U.S.C. § 271(c)(2)(B).

[176] The assignment or transfer of an LMDS license is subject to Section 101.53 of the Commission's Rules, 47 C.F.R. § 101.53, which implements Section 310(d) of the Communications Act, 47 U.S.C. § 310(d). Section 101.53(a) provides that an assignment or transfer may not be effectuated "except upon application to the Commission and upon [a] finding by the Commission that the public interest, convenience and necessity will be served thereby." 47 C.F.R. § 101.53(c).

[177] These factors are drawn from the *Second Report and Order*, where they were developed for purposes of determining whether to grant petitions for waiver of the eligibility requirements. *See Second Report and Order*, 12 FCC Rcd at 12633-34 (para. 199).

(4) the regulatory environment for competing providers in the relevant geographic region; and

(5) whether the LEC or cable company seeking to acquire the LMDS license has in fact experienced a significant loss in market share due to the entry of new competitors or the expansion of existing competitors.

B. Service Rules

1. Frequency Coordination and Emission Masks

115. Alcatel seeks clarification how LMDS licensees can fulfill the obligation to conduct frequency coordination with neighboring LMDS systems under the area-wide licensing of LMDS.[178] The *Second Report and Order* adopted the requirement that LMDS licensees avoid interference problems by coordinating operations with other LMDS licensees in the geographic areas immediately adjacent to their BTA boundary under the existing coordination procedures in Section 101.103(g) of the Commission's Rules.[179] The requirement is triggered when an LMDS licensee would operate transmitting facilities located within 20 kilometers of the boundaries of its BTA. The LMDS licensee is required to initiate the coordination process with respect to any neighboring BTA licensee that may be affected by such operations and complete the process before it may initiate such operations.[180]

116. Alcatel notes that the licensing framework for LMDS adopted in the *Second Report and Order* permits the LMDS licensee to construct and operate individual stations anywhere within its BTA service area without filing an application for prior Commission authorization.[181] Alcatel argues that it is unclear how frequency coordination can be conducted without the adjacent LMDS licensee obtaining a license for its individual facilities

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[178] Alcatel Letter at 2.

[179] 47 C.F.R. § 101.103(d); *Second Report and Order*, 12 FCC Rcd at 12663-64 (paras. 273-279), adopting 47 C.F.R. § 101.103(g).

[180] In addition, the same rule also requires the LMDS licensee operating in the 31,000-31,075 MHz and 31,225-31,300 MHz bands to coordinate with non-LTTS co-channel incumbent licensees operating in these bands if its facilities would operate within 20 kilometers of such neighboring facilities. *Second Report and Order*, 12 FCC Rcd at 12664 (para. 280), adopting 47 C.F.R. §§ 101.103(b)(1)(i-iii), 101.103(g)(1). Also, LMDS licensees operating in the 29,100-29,250 MHz band have special coordination requirements with certain satellite licensees. 47 C.F.R. § 101.103(h). Alcatel's concerns, however, are not pertinent to these additional coordination requirements, inasmuch as they involve non-LMDS licensees that do not have area-wide licenses.

[181] *Second Report and Order*, 12 FCC Rcd at 12643 (para. 222).

and providing the technical data that is available for licensed facilities. Alcatel contends that the LMDS licensee that is required to initiate the coordination requirement will not know the necessary information about any neighboring LMDS licensees to fulfill its obligation. Alcatel argues that this lack of critical data could be a significant problem because an LMDS signal is capable of being transmitted well over 20 kilometers. Moreover, Alcatel contends that license partitioning and disaggregation would result in smaller adjacent service areas that are more vulnerable to interfering signals.[182] Alcatel argues that the Commission must establish some mechanism to provide the data needed for frequency coordination.[183]

117. We find that the necessary information is available for the LMDS licensee to fulfill the frequency coordination requirement we imposed on LMDS licensees in new Section 101.103(g) of the Commission's Rules and, thus, no additional mechanism is needed to provide the information. The coordination requirement is limited to those situations in which an LMDS licensee operates transmitting facilities located within 20 kilometers of its BTA boundary. When that occurs, the licensee is obligated to complete the coordination procedures set out in Section 101.103(d)(2), as modified by any special provisions we adopted for LMDS licensees in Section 101.103(g), with any neighboring LMDS licensees that may be affected in order to keep system interference to a minimum.[184] The coordination process consists of two separate elements, notification and response, in which the LMDS licensee and such neighbors exchange the necessary technical data to identify and resolve any interference problems.[185] The process may be completed orally, such as informally by telephone, as well as in writing or electronically.

118. Under the procedures, the LMDS licensee initiates the coordination process by notifying the neighboring LMDS licensees of the "relevant technical details" of its proposed facility changes that triggered the coordination requirement.[186] In order to determine which neighboring LMDS licensees should be notified, the identity of all licensees is in the Commission's database, and this information is readily available. Thus, the LMDS licensee is able to obtain the identity of any holders of LMDS licenses in the geographic areas adjacent

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[182] As for Alcatel's concern about the impact of interfering signals on the smaller service areas resulting from partitioning and disaggregation, our proposed service rules to implement such activities and to apply the frequency coordination requirements to disaggregated or partitioned licenses remain pending a final decision. *Id.* at 12716 (para. 423). Thus, Alcatel's concern will be addressed at that time.

[183] Alcatel Letter at 3.

[184] *Second Report and Order*, 12 FCC Rcd at 12663-64 (paras. 278-279).

[185] 47 C.F.R. § 101.103(d)(2)(i).

[186] 47 C.F.R. § 101.103(d)(2)(ii).

to the BTA boundary that it believes could be affected by its facilities located within 20 kilometers of its common boundary. If an adjacent license was assigned and partitioned or disaggregated for use by another entity that operates facilities that may be affected, that would have been subject to public notice and would be in the Commission's database, as well. Although the location of each of the LMDS facilities in the adjacent licensed areas may not be known to the LMDS licensee, that is not information necessary to fulfilling the notification requirement of informing adjacent LMDS licensees of the technical extent of its own facilities within the 20-kilometer area of its boundary with them. As long as the LMDS licensee provides any potentially-affected LMDS license holders operating in the adjacent geographic areas with accurate technical data of its own facility, as required in the notification, the adjacent operators can determine which, if any, of their facilities may be affected and can respond appropriately.

119. The coordination process requires that, after notification, the responding licensee is to indicate promptly any potential interference and specify technical details, whereupon the licensees are required to make every reasonable effort to eliminate any problems and conflicts.[187] The *Second Report and Order* specified that the coordinating parties must supply the necessary information related to their channelization and frequency plan, receiver parameters (*e.g.*, noise figure, bandwidth, and thresholds), and system geometry.[188] Thus, contrary to Alcatel's assertion, the LMDS licensee will be informed by its neighboring LMDS licensees that respond to its notification of the extent of their operations to be affected, including the location of such facilities or other critical data, to enable the licensee to complete the coordination process. Moreover, if no response to its notification is received within 30 days, the licensee is deemed to have made reasonable efforts to coordinate and may commence operation.[189]

120. Additionally, the *Second Report and Order* adopted a provision to ensure that the technical data submitted with an initial application for an LMDS license is updated as necessary to accurately reflect a licensee's facilities. As Alcatel notes, LMDS licensees are permitted to construct stations and place them in operation anywhere within their authorized geographic areas at any time.[190] The Commission recognized, however, that it is important to

[187] 47 C.F.R. §§ 101.103(d)(2)(iv), 101.103(g)(2).

[188] *Second Report and Order*, 12 FCC Rcd at 12663-64 (para. 279).

[189] 47 C.F.R. § 101.103(g)(2).

[190] *Second Report and Order*, 12 FCC Rcd at 12643-44 (para. 222), adopting amendment to 47 C.F.R. § 101.15(a) and new 47 C.F.R. § 101.1009(a).

have on file updated information on the technical aspects of any such operations for purposes of enforcement.[191]

121. Accordingly, the Commission required that LMDS licensees notify the Commission within 30 days after constructing or moving facilities and include a statement of the technical parameters of the new or changed station.[192] To accomplish this, the Commission modified the existing application filing procedures that provide for notification within 30 days of permissible changes that do not require prior Commission approval and included LMDS licensees that add, remove, or relocate facilities within their licensed area.[193] In all other respects, the LMDS applicant seeking an initial authorization of a geographic area and the LMDS licensee seeking a major or minor modification of an existing facility would file an application under the appropriate application filing procedures and provide the necessary technical information.[194] Thus, updated information on the location and technical parameters of the facilities of any LMDS licensees, including adjacent licensees, also is available from such applications, whether for prior approval or for notification of permissible modifications.

122. Alcatel also requests clarification whether, in adopting provisions in the *Second Report and Order* to provide adequate protection from potential radio frequency (RF) radiation emissions to subscribers and the public, the Commission applied the existing emission mask requirements in Part 101 of the Commission's Rules to LMDS.[195] Alcatel requests that the Commission reaffirm that the general emission requirements in Part 101 apply to LMDS. The considerations in adopting RF rules concerned radiation exposure and standards for how much power may radiate at specified distances, which have nothing to do with emission masks.[196] The *Second Report and Order* did not address emission masks and,

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[191] *Id.* at 12647-48 (para. 235).

[192] *Id.*, adopting 47 C.F.R. § 101.1009(b). The Commission adopted similar requirements when it implemented new service rules for area-wide licensing in other wireless services. *See, e.g.*, Amendment of Part 90 of the Commission's Rules To Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service, PR Docket No. 89-552 and RM-8506, Third Report and Order and Fifth Notice of Proposed Rulemaking, 12 FCC Rcd 10943, 10980 (para. 80), adopting 47 C.F.R. § 90.763(b)(4) (1997) (*220 MHz Third Report and Order*), *recon. pending.*

[193] 47 C.F.R. § 101.61(c)(10).

[194] 47 C.F.R. §§ 101.15(a), 101.57(a)(1), 101.59(a), 101.59(b)(1).

[195] Alcatel Letter at 2 n.7.

[196] *Second Report and Order*, 12 FCC Rcd at 12669-70 (paras. 292-296).

accordingly, the existing rules in Part 101 apply. Specifically, the emission specifications set out in Section 101.111 apply to LMDS.[197]

2. Construction Requirements

123. RTG seeks reconsideration of the flexible build-out requirements we imposed on LMDS licensees.[198] The construction rule requires that licensees provide "substantial service" in their area within the 10-year licensed period, at which time the licensee is to submit a showing of substantial service as described in the rule and the *Second Report and Order* in order to renew the license.[199] RTG argues that the rule violates the mandate of Section 309(j)(4)(B) of the Act that governs performance requirements and requires prompt delivery of service to rural areas. RTG asserts that the guidelines for substantial service are so permissive as to be meaningless and therefore provide no incentive to licensees to provide service to high cost rural areas. RTG argues a stricter construction rule is necessary to encourage service and partitioning on behalf of rural LECs. RTG contends that we erred in using the same construction rule we adopted for the Wireless Communications Service (WCS),[200] and requests that we revise the rule to reflect the more stringent requirements in other services such as cellular.

124. CellularVision opposes the request and argues that strict construction requirements are not necessary to maximize coverage to rural areas. CellularVision argues that service in rural areas is better achieved through partitioning based on marketplace demand and that strict construction requirements could discourage development of the variety of services that LMDS licensees may provide.[201] We consider the arguments more fully below.

125. Contrary to RTG's contention, the Commission fully considered the statutory obligations under Section 309(j)(4)(B) of the Act in adopting the construction rule in the *Second Report and Order*. As RTG notes, Section 309(j)(4)(B) requires that we prescribe performance requirements, such as appropriate deadlines, that take into account not only the prompt delivery of service to rural areas, but also that prevent warehousing of spectrum and

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[197] 47 C.F.R. §§ 101.111(a)(1), 101.111(a)(2).

[198] RTG Petition at 12-15.

[199] *Second Report and Order*, 12 FCC Rcd at 12658-61 (paras. 263-272), adopting 47 C.F.R. § 101.1011.

[200] Amendment of the Commission's Rules To Establish Part 27, the Wireless Communications Service (WCS), GN Docket No. 96-228, Report and Order, 12 FCC Rcd 10785, 10830-36 (paras. 111-115) (1997) (*WCS Report and Order*).

[201] CellularVision Consolidated Opposition to RTG's Petition at 8-9.

that promote investment in and rapid deployment of new technologies and services.[202] Thus, service to rural areas is one of three factors for consideration and, contrary to RTG's suggestion, is not a goal that is reserved exclusively for rural LECs to achieve. As described below, the Commission considered all three factors in weighing the benefits of the construction requirement it adopted and specifically concluded that the rule it adopted would promote efficient use of the spectrum, encourage the provision of service to rural areas, and prevent the warehousing of spectrum.[203] Moreover, in determining that the requirements were consistent with the statutory obligations under Section 309(j)4)(B), the Commission specifically reserved the right to review the rule in the future.[204] Complaints or our own monitoring initiatives or investigations may indicate that a reassessment is warranted under the statutory provisions and that more stringent requirements may be necessary to resolve anticompetitive problems or lack of service to rural areas.

126. We disagree with RTG that reliance on the same construction rule the Commission recently adopted in the WCS rules is misplaced or inappropriate.[205] RTG points out the many differences between WCS and LMDS, and argues that LMDS licensees should be held to more rapid delivery of service. Yet the Commission did not rely on similarities between the services in finding the same standard appropriate. Instead, it considered the standard in the context of LMDS and found a number of reasons why it was appropriate for implementing LMDS and meeting the requirements of Section 309(j).[206] Specifically, the Commission rejected stricter construction requirements as neither practical nor desirable in meeting the objectives of Section 309(j) because the broad range of new and innovative services in LMDS, many of which remain in the design stage awaiting issuance of licenses, makes it difficult to devise specific construction benchmarks.

127. The Commission also found that stricter requirements could discourage participation in LMDS because of the new nature and broad definition of the service, and because equipment is under development, and there may be licensees able to conduct certain operations that have to await further technological developments. The Commission adopted safe-harbor examples to demonstrate substantial service under an LMDS license at the end of the 10-year period, including as factors whether a licensee is serving niche markets or

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[202] 47 U.S.C. § 309(j)(4)(B).

[203] *Second Report and Order*, 12 FCC Rcd at 12659 (para. 266).

[204] *Id.* at 12661 (para. 272).

[205] 47 C.F.R. § 27.14.

[206] *Second Report and Order*, 12 FCC Rcd at 12659-60 (paras. 267-268).

populations outside of areas served by other licensees.[207] In all respects, the Commission found that the construction standard it adopted promoted the goals of Section 309(j) and the goals for LMDS.

128. As a final matter, RTG argues that reliance on the effectiveness of competitive bidding to assign licenses to those most willing to use the license, the availability of partitioning and disaggregation of LMDS licenses, and the broad universal service policies do not establish that the liberal construction rule is consistent with Section 309(j).[208] Contrary to RTG's suggestion, the Commission identified these as additional Commission policies and practices that, together with the LMDS construction requirements, it believes will be effective in promoting service to rural areas.[209] The Commission did not rely on these policies and practices to justify the construction rule or otherwise find it consistent with Section 309(j)(4)(B). As discussed at length above, the Commission found that geographic partitioning of LMDS licenses will be useful in expediting delivery of services to rural areas[210] and that the mission of universal service to rural areas as well as urban areas will be promoted through competition.[211]

C. 31 GHz Spectrum Designation

1. Background

129. In the *First Report and Order and Fourth NPRM*, the Commission adopted a band plan that provided 1,000 megahertz of spectrum in the 28 GHz band for use by LMDS.[212] The band plan, however, provided that 150 megahertz of LMDS spectrum between 29.1-29.25 GHz would be shared on a co-primary basis with certain satellite providers and would be restricted to hub-to-subscriber (*i.e.*, one-way) transmissions. The Commission decided it would be necessary to provide additional spectrum so that LMDS providers would be able to offer the full range of services contemplated by the proposed LMDS rules. The *Fourth NPRM* found that existing use of the 31 GHz spectrum band at 31.0-31.3 GHz was relatively light and concentrated in a few areas, and proposed to redesignate that spectrum for

[207] *Id.* at 12660-61 (para. 270).

[208] RTG Petition at 13-14.

[209] *Second Report and Order*, 12 FCC Rcd at 12661 (para. 271).

[210] *See* para. 103, *supra.*

[211] *See* para. 110, *supra.*

[212] *Fourth NPRM*, 11 FCC Rcd at 19033-34 (paras. 67-71), 19043-45 (paras. 97-98).

LMDS on a primary protected basis.[213] It was noted that the existing rules did not provide interference protection for incumbent licensees and comments were requested on methods to accommodate their operations without affecting the proposed implementation of LMDS in the band.

130. In the *Second Report and Order*, the Commission balanced the public interest objectives of preserving existing 31 GHz services, in particular the traffic control systems provided by governmental licensees, against the demand for LMDS, whose telecommunications and video services are incompatible with existing services.[214] The Commission considered competing band use plans submitted by CellularVision and Sierra for dividing the band in order to accommodate both the incumbent licensees and services as well as LMDS. Based on these considerations, the Commission concluded that the competing interests reflected in the record would best be accommodated by designating the entire 300 megahertz of spectrum in the 31 GHz band for use by LMDS, but modifying our proposal and segmenting the band based on certain aspects of both of the band plans to provide protection for certain incumbent licensees.[215]

131. The band was segmented to establish a segment of 150 megahertz in the middle of the 300 megahertz, in which all incumbents may continue to operate but on a secondary basis to LMDS operations and subject to harmful interference from LMDS. The segments of 75 megahertz at each end of the band are described as the outer 150 megahertz segment in which those incumbent 31 GHz licensees not authorized in the Local Television Transmission Service (LTTS) are accorded protection from harmful interference from LMDS operators. These incumbents consisted of private business and governmental licensees. The non-LTTS licensees in the middle segment were provided the option to relocate to the outer 150 megahertz to receive protection upon filing an application for modification of their licenses within 15 days from the effective date of the rules. Because the entire 300 megahertz was designated for LMDS licensing, the Commission determined not to accept new applications for new or expanded licenses under the existing 31 GHz service rules and to dismiss all pending applications for such licenses.

2. Designation of Spectrum for Incumbent Services

132. Sierra requests that we reconsider the decision to redesignate the entire 300 megahertz in the 31 GHz band to LMDS. Sierra argues that the Commission erred in not

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[213] *Id.* at 19043-47 (paras. 95-104).

[214] *Second Report and Order*, 12 FCC Rcd at 12558-95 (paras. 15-115).

[215] *Id.* at 12581-87 (paras. 79-105).

adopting the proposal in Sierra's band plan to designate only the middle 150 megahertz for LMDS and preserve the outer 150 megahertz exclusively for continued use under the existing rules for private, point-to-point services.[216] Sierra supports the Commission's adoption of those aspects of its band segmentation plan that provide protection to existing private business and governmental licensees in the outer 150 megahertz and allow those existing licensees located in the middle band to relocate to the outer band. However, Sierra argues that the Commission's decision to close the outer 150 megahertz segment to future growth under the existing rules in order to give the segment to LMDS is not supported by the record and is contrary to the public interest.

133. Commpare, CSG, Sunnyvale, Videolinx, and Westec submit letters in support of Sierra's petition.[217] These parties claim that they are involved in the development or distribution of the 31 GHz equipment manufactured by Sierra. Sunnyvale and Videolinx argue that Sierra's 31 GHz equipment is an inexpensive wireless solution for traffic management through intersection coordination and video surveillance and that continued designation of the band is essential to the public safety. Commpare states that it is a reseller both domestically and in Latin America of the equipment Sierra manufactures for 31 GHz and argues that our decision will adversely affect the manufacture of Sierra's equipment, resulting in the loss of Commpare's Latin American market, which, it asserts, relies on such wireless means for certain telecommunications services. CSG and Westec are system integrators of microwave systems that rely on Sierra's 31 GHz equipment for some of their wireless customers.

134. CellularVision and TI oppose Sierra's requests. They argue that the Commission established a thorough record in the *Second Report and Order* that provides ample justification for the Commission's findings and that addresses all of the arguments Sierra raises on reconsideration.[218] They argue that Sierra fails to make any new arguments, and that the Commission should summarily deny Sierra's petition. CellularVision and TI assert that the 31 GHz band plan is an acceptable compromise based on the Commission's careful balancing of the public interest factors reflected by Sierra and others to protect the operations of certain existing licensees while meeting the immediate spectrum requirements of LMDS. They argue that there is no basis to grant Sierra's petition to abandon the 31 GHz band plan compromise or otherwise modify our decision. We consider the arguments more fully below, and deny the petitions.

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[216] Sierra Petition at 2-4.

[217] Commpare, CSG, Sunnyvale,Videolinx, and Westec Letters.

[218] CellularVision Opposition to Sierra's Petition at 9; TI Opposition to Sierra's Petition at 1-4.

a. LMDS Spectrum Needs

135. Sierra argues that there is no basis for our determination in the *Second Report and Order* that the entire 300 megahertz of the 31 GHz band is necessary for the full range of LMDS operations and is technically suitable and useful for LMDS.[219] Sierra asserts that the Commission relied upon unsupported speculations of LMDS proponents that fail to demonstrate any actual need or use for more than 1,000 megahertz of unencumbered spectrum, which Sierra argues can be satisfied by designating only the middle 150 megahertz of the band plan to LMDS. Sierra contends that, until the *Fourth NPRM* proposed to designate the 31 GHz band for LMDS, there was no interest or need expressed for more than 1,000 megahertz for each LMDS provider.

136. CellularVision and TI oppose Sierra's contention that LMDS received more spectrum in the 31 GHz band than was warranted by the record.[220] TI argues that the *Second Report and Order* demonstrates that the need for more than one gigahertz of unencumbered spectrum for LMDS is well established in this proceeding. CellularVision contends that Sierra ignores the history of the LMDS proceeding, in which the *First NPRM* proposed 2,000 megahertz of contiguous and unencumbered spectrum for the two LMDS licenses, and the realities of the licensing scheme ultimately adopted for LMDS, in which no single LMDS license is assigned more than 1,000 megahertz of unencumbered spectrum. TI submits a letter supporting our determinations in the *Second Report and Order*, but requesting we clarify that securing additional spectrum for LMDS is a priority to ensure the full potential of LMDS is met and that we continue efforts to locate spectrum below 27.5 GHz to designate for LMDS.[221]

137. We disagree with Sierra's contention that the findings in the *Second Report and Order* of the need for, and suitability of, the entire 300 GHz in the 31 GHz band for LMDS are unsupported.[222] In the *Second Report and Order*, the Commission noted the numerous comments in support of designating the 31 GHz band for LMDS, which included comments from satellite systems, cable, rural telephone, and television trade associations, and potential licensees or manufacturers.[223] These commenters described the importance of the additional 300 megahertz to accommodate the high-speed, broadband, interactive services that make up

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[219] Sierra Petition at 5-6.

[220] CellularVision Opposition to Sierra's Petition at 6-8; TI Opposition to Sierra's Petition at 5-6.

[221] TI Request for Clarification at 2.

[222] *Second Report and Order*, 12 FCC Rcd at 12566-68 (paras. 38-43).

[223] *Id.* at 12559-61 (paras. 20-23).

LMDS, and they contended that the additional spectrum in the 31 GHz band would address concerns that 150 of the 1,000 megahertz of spectrum in the 28 GHz band would be shared on a co-primary basis with Non-Geostationary Orbit/Mobile Satellite Service feeder links. The Commission noted that CellularVision, Webcel, and other commenters seek the extra capacity to maximize the potential for LMDS to compete with incumbent cable and telephone services, and to encourage development of other commercially viable uses for LMDS spectrum. The comments described the experimentation and advancements in two-way services that require the 300 megahertz to ensure the development of LMDS. As the Commission concluded, making available for LMDS the entire 300 megahertz in the 31 GHz band would permit the full range of telecommunications and video services the licensees intend to offer and ensure greater potential for LMDS in the marketplace.[224]

138. Sierra does not demonstrate that these comments were unreliable or that, for some technical or operational reasons, LMDS would neither use nor benefit from the entire 300 megahertz as the comments stated. The Commission rejected Sierra's previous arguments that 31 GHz was not suitable for LMDS and that alternative spectrum should be used, finding no technical obstacles to its use and that several equipment manufacturers were committed to developing its use.[225] As TI notes, the Commission rejected requests to designate adjacent spectrum below 27.5 GHz for LMDS because the spectrum is not available, but we determined to continue discussions with the National Telecommunications Information Agency (NTIA) on the feasibility of commercial usage.[226] We clarify for TI that those discussions are continuing as part of our over-all goal to obtain additional spectrum to meet a variety of commercial demands, depending on the availability of the spectrum and the demands at that time.

139. Moreover, CellularVision is correct that Sierra ignores the compromise band plan the Commission adopted for the 31 GHz band to accommodate the competing interests at Sierra's request. Although, based on the record, the Commission denied Sierra's request to exclude LMDS altogether from the outer 150 megahertz, it nevertheless granted the request to the extent Sierra sought to require LMDS licensees in that segment to protect non-LTTS incumbent licensees that otherwise were without any legal protection from harmful interference. Thus, LMDS was not accorded completely unencumbered access to the 300 megahertz of the 31 GHz band, as Sierra states, but only as to the middle 150 megahertz segment.

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[224] *Id.* at 12567 (para. 40).

[225] *Id.* at 12567-68 (paras. 41-43).

[226] *Id.* at 12567-68 (para. 42).

140. Additionally, as CellularVision notes, the licensing blocks do not provide any single LMDS license with more than 1,000 megahertz of unencumbered spectrum. The Commission adopted two license blocks for the LMDS spectrum in the 28 GHz and 31 GHz bands.[227] The larger LMDS license of 1,150 megahertz has 150 megahertz of spectrum encumbered by satellite interests in the 28 GHz band, while the smaller license of 150 megahertz consists of the outer segment of the 31 GHz band where incumbent licensees are protected. This is a substantial reduction from the 2,000 megahertz of unencumbered contiguous spectrum proposed in the 28 GHz band in the *First NPRM* to provide for two LMDS licenses.[228]

141. Although satellite demands required the Commission to authorize initially only 850 megahertz for LMDS on an unencumbered basis in the *First Report and Order*, it was found that without additional unencumbered spectrum, some proposed LMDS systems would not be able to provide the full panoply of two-way services anticipated.[229] In the *Fourth NPRM* issued in conjunction with the *First Report and Order*, the Commission made plain the intention to designate the additional spectrum necessary to satisfy the significant consumer demand for the telephone and video services of LMDS and the belief that the 300 megahertz of spectrum in the 31 GHz band would ensure consumers access to these new and competitive services and technologies.[230] Sierra does not demonstrate on reconsideration that the extensive record that was relied upon in adopting the proposal is without any foundation for finding a need by LMDS for the additional 300 megahertz of spectrum.

b. Near-Term Use and Growth of Incumbent Services

142. Sierra argues that the *Second Report and Order* underestimated the extent of current use of the 31 GHz band and of the demand for future use.[231] Sierra argues that the Commission considered only incumbent licensees when it provided for their protection in the outer 150 megahertz segments, and that the evidence of rapid future growth by existing services was ignored. Sierra contends that the Commission cannot fairly balance the growth prospects of LMDS against the present implementation of incumbent services without taking their future growth into account. Sierra asserts that it and several other commenters presented extensive data to show that current use is neither light nor sparse and that future growth will

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[227] *Id.* at 12600-01 (paras. 125-127).

[228] *First NPRM*, 8 FCC Rcd at 560 (para. 20).

[229] *First Report and Order and Fourth NPRM*, 11 FCC Rcd at 19043 (para. 97).

[230] *Id.* at 19044-45 (paras. 98-100).

[231] Sierra Petition at 6-10.

be prodigious. CellularVision and TI argue that, in addressing similar claims by Sierra, the Commission fully considered the extent of current and future 31 GHz services and that Sierra's claims remain unsupported on reconsideration.[232] CellularVision and TI claim that Sierra ignores the Commission's responsibility to revisit spectrum use to determine its most efficient and effective use in the public interest and the record analysis demonstrating only minimal, scattered spectrum use over the past 12 years under the existing point-to-point 31 GHz rules, as compared to the demand for the new broadband services of LMDS.

143. We disagree with Sierra that the decision to designate the 31 GHz band rested on only a presumption that use of the 31 GHz band is relatively light and concentrated in a few sparsely populated areas, and that the reality is otherwise.[233] In making the decision, the Commission undertook an extensive analysis of the number of incumbent licensees, the types of services they are licensed to provide, and the nature and scope of all the services that operate in the band.[234] That was done to address the arguments of Sierra, Sunnyvale, and others that the number of licensees is extensive, particularly insofar as there are governmental licensees using the spectrum for traffic control services. Based on this review, the Commission concluded that, despite the nationwide availability of the spectrum, the number of entities licensed under the existing rules for 31 GHz services is small and the locations are very few and confined.[235]

144. Although Sierra does not contend that the figures and analyses are wrong, it nevertheless addresses certain aspects of the Commission's findings that it argues would show that current use is not light and that there could be a prodigious rate of growth under the existing 31 GHz point-to-point rules, particularly by governmental entities to provide traffic control systems. Specifically, Sierra notes that the Commission corrected the total number of licensees from the numbers reflected in the *Fourth NPRM* to 86 licensees. Sierra, however, fails to acknowledge the breakdown and analysis of the licensed services and that, of the total, only 19 are governmental licensees, of which 14 are municipal licensees.[236]

145. Of the remaining licensees, 59 are licensed under the LTTS procedures to provide service on a temporary, as-needed basis anywhere in a broad area, have alternative

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[232] CellularVision Opposition to Sierra's Petition at 4-5; TI Opposition to Sierra's Petition at 6-7.

[233] Sierra Petition at 9, citing *Fourth NPRM*, 11 FCC Rcd at 19035-37 (paras. 75, 99).

[234] *Second Report and Order*, 12 FCC Rcd at 12568-73 (paras. 44-56).

[235] *Id.* at 12573 (para. 56).

[236] *Id.* at 12569-70 (para. 47).

spectrum available, and did not submit comments.[237] The final eight licensees are private business licensees that use the service within a business or group. The Commission considered all of the evidence presented by Sierra and in other comments that the numbers are higher, particularly for governmental entities, but could verify only 19 as licensed. The remainder were found to be duplicates, manufacturers or dealers that are not subject to the service rules, unlicensed users that cannot be taken into account, or users whose nature and status could not be determined based on the evidence presented by Sierra.[238] Sierra does not demonstrate that the figures or analyses of current use are mistaken or otherwise in error.

146. In further support of its claims of extensive use, Sierra notes that the list the Commission set out in Appendix B to the *Second Report and Order* identifying the existing governmental and private business licensees shows licensees in 11 states scattered across every part of the country, plus the Gulf of Mexico region.[239] It argues that there are several governmental licensees whose populations considerably exceed 50,000. Sierra then identifies the entire population figures of the three states that are licensees, namely California, Washington, and Wisconsin, as well as some of the city and county licensees. Sierra, however, does not explain how these figures support its contention that the use of the 31 GHz band is extensive and nationwide. In identifying the non-LTTS licensees, Appendix B confirms the identity of the 19 governmental licensees and the 19 municipalities in which they operate, as well as the identity of the eight private business licensees and the eight municipalities in which they operate, plus the private business licensee in the Gulf of Mexico.[240] Of the governmental licensees, the largest number are located in California and their operations are in 12 municipalities of varying sizes. Of the remaining seven governmental licensees, they operate in a single municipality in six states, except for two municipalities in Washington. The eight private business licensees operate in the remaining four states noted by Sierra, but their operations also are very localized and limited to locations within eight municipalities.

147. We find that Sierra's reliance on entire populations of the states in which the governmental licensees are located bears no relationship to either the nature of their licensed service areas or the geographic areas they are authorized to serve. The *Second Report and Order* examined the Commission's goals in implementing the 31 GHz service rules in 1985 and the scope of the licensed services as part of the Commission's responsibility to determine

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[237] *Id.* at 12572-73 (para. 55), 12585 (para. 89).

[238] *Id.* at 12569 (para. 45), 12570-71 (paras. 48-50), 12571 (para. 52).

[239] Sierra Petition at 7 nn.24, 25.

[240] *Second Report and Order*, 12 FCC Rcd at 12763-65 (Appendix B).

whether spectrum is being put to the most efficient and effective use in the public interest.[241] As the Commission pointed out, the 31 GHz services are licensed on a point-to-point basis or within an area defined by a point and radius under simplified rules that were to encourage various short-range services. The Commission examined all the comments from governmental entities, both licensed and unlicensed, that included such municipalities as Palm Springs, San Diego, Topeka, Honolulu, and Long Beach and that described 31 GHz service in terms of the number of traffic signals and intersections with the respective municipalities.[242] Both from the described services and the locations identified in Appendix B, it is clear that neither the governmental entities nor the remaining licensees provide service on a state-wide or county-wide basis as Sierra contends, but rather are limited to a few short-range communication operations as part of various traffic control systems or private businesses within specific municipalities.

148. Moreover, we disagree with Sierra that the *Second Report and Order* failed to consider the evidence of rapid growth in 31 GHz services and the future needs for the incumbent services.[243] Contrary to Sierra's assertion, the Commission considered not only "all incumbent licensees and interests" as Sierra claims in determining the correct number and extent of existing services,[244] but the extent to which the record supported arguments by Sierra and others of substantial growth. Sierra repeats its claims that, as the provider of most of the 31 GHz transmitters, it has shipped 75 percent more transmitters in 1996 than 1995, and expects to ship four times more in 1997 than 1996.[245] But it submits no information in support of its claims to indicate how such claims are reflected in the small number of existing licensees or pending applicants that are governmental entities. Sierra repeats the claim that a list of 42 customer sites being installed or planned submitted by Sunnyvale is further proof of growth. The Commission found, however, that only 12 on the list were licensees and the status of the remainder as future licensees would be unpredictable.

149. The Commission fully considered the number of pending applications and we disagree on reconsideration that they are further evidence of pressure for growth in the band.[246] As the Commission pointed out, they were filed after the *Fourth NPRM* when we

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[241] *Id.* at 12571-73 (paras. 54-55).

[242] *Id.* at 12573-75 (paras. 58-61).

[243] Sierra Petition at 7-10.

[244] *Second Report and Order*, 12 FCC Rcd at 12571 (para. 51).

[245] *Id.* at 12571 (para. 53).

[246] *Id.* at 12589 (para. 100).

proposed to redesignate the 300 megahertz in the 31 GHz band to LMDS and specifically requested comments on whether to accept any new applications, modifications, or renewal applications under the 31 GHz rules.[247] The Commission thoroughly considered the extent to which the comments, which were from the traffic control interests, addressed the plans by states and municipalities to expand existing systems or establish new traffic control systems.[248] Yet all of the applications were from new applicants that are not licensees and, thus, no existing licensees sought during that period to expand their systems as Sierra claims. Moreover, with the exception of Nevada DOT, none of the comments addressed new or planned systems that were the subject of pending applications. Nevada DOT, together with the Cities of Las Vegas and North Las Vegas (Cities), had filed applications to initiate a traffic signal control system for the Las Vegas metropolitan area.[249] The Commission noted that the remaining applicants essentially were non-governmental entities. None of the evidence supports Sierra's repeated contentions of rapid growth of services in the 31 GHz band under the previous service rules. We find that its comparison to future growth of LMDS is misleading, since LMDS is being authorized for the first time and the only existing service from CellularVision was established under a one-time waiver of the existing rules that led to the initiation of this proceeding.

c. Public Interest Issues

150. Sierra argues that the Commission did not give proper weight to the public interest in the incumbent 31 GHz services and the need to preserve their licensing in the outer 150 megahertz segment, rather than redesignate that segment for LMDS.[250] Sierra argues that, although the Commission acknowledged the public interest in the traffic control systems provided by the governmental licensees and properly extended frequency protection to them, the Commission eliminated all further licensing under the rules without any explanation of why their expanding use of the band should be ignored. Sierra asserts that the disregard for future users makes no sense in view of the recognition of the public interest and the pressure for expanded services. Sierra further argues that the alternative methods that the Commission suggested were available for governmental entities to obtain spectrum are not acceptable. CellularVision and TI disagree with Sierra. They argue that the Commission was careful to thoroughly examine the public interest associated with the incumbent services and to balance that interest against the public interest in favor of LMDS to satisfy the Commission's

[247] *Fourth NPRM*, 11 FCC Rcd at 19046-47 (para. 103).

[248] *Second Report and Order*, 12 FCC Rcd at 12587 (paras. 95-96).

[249] *Id.* at 12587 (para. 95), 12589 (paras. 100-101).

[250] Sierra Petition at 10-14.

obligation to determine the most efficient use of the spectrum.[251] CellularVision and TI contend that the Commission accorded more than sufficient weight to the public interest in the incumbent licensees and gave them ample deference when the Commission modified our proposal to grant them protected status from LMDS interference in the outer 150 megahertz.

151. We disagree that the Commission ignored the public interest in preserving the 31 GHz band for the continued use by governmental entities for traffic control systems. Sierra cites to numerous comments from governmental entities, IMSA, and equipment dealers; yet the Commission fully considered them all in the *Second Report and Order*. Based on these comments, the Commission concluded that traffic control systems are an important category of incumbent services that currently make the most extensive use of the 31 GHz spectrum and are increasingly being used by governments to meet Federal goals to reduce congestion and air pollution.[252] Accordingly, the Commission determined that incumbent licensees should continue to operate free from interference and could require protection from LMDS.[253] For these reasons the Commission modified its proposal and adopted, in part, the band plan proposed by Sierra to segment the 300 megahertz in the 31 GHz band to provide an outer sub-band of 150 megahertz that allows incumbent governmental licensees to continue their traffic signal operations with protections from LMDS.[254]

152. The Commission, however, did not find persuasive evidence to preserve the outer 150 megahertz segment for the continued and exclusive licensing of 31 GHz services, including traffic control systems. The Commission pointed out that, in weighing the public interest, incumbent interests must be balanced against the interests in promoting LMDS as an important new technology with a wealth of innovative services that are expected to compete with local telephone and cable service to enhance customer choice.[255] This careful balancing led to the band plan we adopted for incumbent licensees. The Commission fully considered the comments in response to its inquiry whether to accept any applications for new service under the 31 GHz rules, including the arguments from Sierra, governmental entities, and licensees that seek to preserve the existing rules for licensing.[256] It then balanced the

[251] CellularVision Opposition to Sierra's Petition at 5-6; TI Opposition to Sierra's Petition at 7-8.

[252] *Second Report and Order*, 12 FCC Rcd at 12573-75 (paras. 57-62).

[253] *Id.* at 12577 (para. 67).

[254] *Id.* at 12581-87 (paras. 79-95).

[255] *Id.* at 12577 (para. 68).

[256] *Id.* at 12587-88 (paras. 94-97).

competing interests in continuing 31 GHz licensing and implementing LMDS under an entirely different licensing scheme, based on all the record evidence.

153. Contrary to Sierra's assertion, the Commission did explain the basis for terminating future licensing under the 31 GHz rules. Based on this extensive record, the Commission found several reasons why further growth and development of the 31 GHz services to the exclusion of LMDS in the outer 150 megahertz segment of the band would be inconsistent with the record. These included the need to fully accommodate LMDS as it develops, the incompatibility of 31 GHz services with LMDS that could have a chilling effect on the development of LMDS, and the uncertainties of the described plans for future growth of traffic systems in light of the rapidly changing technology for traffic systems.[257] As we demonstrate, Sierra does not refute the determination that LMDS would benefit from the additional spectrum and that incumbent services are not extensive. Thus, the Commission properly concluded that use of this spectrum under the existing rules over the past 12 years has been minimal and that designating future licensing on the 31 GHz band for LMDS fulfills our obligation to designate spectrum for the most effective and efficient use.[258]

154. We disagree with Sierra that governmental entities cannot obtain an acceptable level of service from spectrum obtained through the alternative means described in the *Second Report and Order*.[259] First, Sierra argues that bidding on the 150 megahertz license in their BTAs is not an option for most local governmental entities. Sierra contends that they only need a tiny fraction of the BTA, it is not practical for them to engage in the business of selling or leasing excess spectrum, the BTA encompasses several cities with separate installations, and few have the resources or time to participate collaboratively in the auction.[260] We do not find these arguments persuasive. The 150 megahertz license was adopted in order to assign the outer 150 megahertz of the 31 GHz band as a separate and smaller license that is more easily available to smaller operators.[261] The Commission concluded that this smaller license addressed the needs of commenters for a smaller bandwidth to provide for smaller operators, niche markets, and services that are economically viable under cheaper, narrower bandwidth licenses. The Commission sought to make it easier for any incumbent licensee or entity interested in continuing to have access to the 31 GHz band for incumbent services to acquire a license for the redesignated spectrum under the LMDS licensing rules. Thus, the

[257] *Id.* at 12588-89 (paras. 98-99).

[258] *Id.* at 12589-90 (para. 101).

[259] *Id.* at 12594-95 (para. 114).

[260] Sierra Petition at 12-13.

[261] *Second Report and Order*, 12 FCC Rcd at 12601 (paras. 128-129).

smaller license is available as an option to those small entities that are interested in providing service under the LMDS rules to gain access to 31 GHz spectrum.

155. Sierra next asserts that acquiring spectrum from the local LMDS licensee through spectrum disaggregation or geographic partitioning of the LMDS license is not feasible.[262] As Sierra points out, the Commission adopted its proposal to divide the 31 GHz band into the two outer 75 megahertz segments to accommodate the traffic control systems described by Sierra, which require a full 150 megahertz for each intersection or stretch of highway and thereby occupy all of the outer segments.[263] Sierra contends that disaggregation would not provide enough spectrum and geographic partitioning would transfer rights to far more area than the local entity can use, inasmuch as a system occupies only a small fraction of an area. We disagree. Although the procedural rules governing disaggregation or partitioning are pending, the *Second Report and Order* determined to provide licensees the flexibility to disaggregate and partition their licenses to encourage use of the spectrum and leave the size of licenses to the marketplace.[264] The Commission proposed that the parties be given the flexibility to define the partitioned license area. A governmental entity would be able to do so, based on its pattern of usage, so that it would hold spectrum for a license area appropriately defined to meet its needs.[265] Whether or not disaggregation is a viable option, the entity may use partitioning both to acquire the portion of an area it wants from the LMDS licensee or to sell off the excess areas of its own license.

156. As for the remaining alternatives, Sierra argues that transferring to a different transmission medium and leasing service or transmission capacity from a common carrier would require leaving the 31 GHz band for more expensive equipment, put public safety services in the hands of a commercial provider, and may result in reliance on wired systems that are prohibitively expensive.[266] We do not find Sierra's arguments persuasive. The expense and availability of equipment or bands useful to governmental entities are variables that cannot be predicted, in light of the rapid development of equipment and the flexibility in our rules that allow licensees to craft the service that is in demand. As the Commission stated, we cannot predict that 31 GHz will continue to offer the best technology, or that LMDS technology will not be developed to suit some of the incumbent services. The Commission further noted that LMDS supporters indicated a desire to provide access to any

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[262] Sierra Petition at 13.

[263] *Second Report and Order*, 12 FCC Rcd at 12582-83 (paras. 82-83).

[264] *Id.* at 12608 (para. 145).

[265] *Id.* at 12595 (para. 413).

[266] Sierra Petition at 13-14.

licensed spectrum they may acquire either through leasing or other means through which similar traffic control systems could grow.[267]

157. Sierra requests clarification of the footnote that states, after the discussion of the alternatives to licensing under the existing 31 GHz rules, that most of the nation's metropolitan areas do not rely on wireless technology for their traffic control systems.[268] Sierra argues that any implication that wireless systems are not essential for traffic control is wrong and that, instead, most areas have inadequate signal coordination and its purchase orders show the demand for the 31 GHz wireless systems.[269] The footnote is clear. It is prefaced by the information that only 19 governmental entities are licensed under the existing rules for 31 GHz service to provide traffic control operations. In light of this record of 31 GHz usage, and taking into account the large number of local jurisdictions across the Nation, it can certainly be stated that most cities do not use 31 GHz spectrum for wireless traffic control. This is another factor that the Commission weighed in determining the impact of a decision to close the band to new licensing under the 31 GHz rules, together with the other factors discussed above.

3. Refiling of Dismissed Applications

158. Sierra argues that, if the Commission affirms the decision to designate the entire 300 megahertz in the 31 GHz band for LMDS, the Commission should, at a minimum, reinstate the pending 31 GHz applications that had been held in abeyance since the *Fourth NPRM* and subsequently dismissed in the *Second Report and Order*.[270] Sierra contends that the reinstated applications, if ultimately granted, should be entitled to the same interference protections and relocation procedures generally accorded incumbent 31 GHz licensees. In its petition for reconsideration, Sierra argues, first, that the Commission erred in finding that the applicants were on notice that they might no longer be able to provide the desired services using the 31 GHz spectrum. Sierra contends that, even if the time between the *Fourth NPRM* and the *Second Report and Order* were an effective notice period, it was too short for those dismissed applicants that were governmental entities to alter the lengthy preparatory process involved in implementing a traffic control system. Second, Sierra argues that the Commission failed to properly balance the potential public interest benefits associated with the dismissed applications. It contends that the considerable number of dismissed applications filed on

[267] *Second Report and Order*, 12 FCC Rcd at 12588-89 (para. 99).

[268] *Id.* at 12595 (para. 114 n.158).

[269] Sierra Petition at 14.

[270] *Id.* at 15-18.

behalf of Nevada DOT's planned traffic system offer public safety benefits that outweigh any benefits that may come from auctioning 31 GHz spectrum free of those proposed operations.

159. In response, TI opposes Sierra's request and argues that reinstatement of the dismissed applications would be inconsistent with the record and would upset the band plan the Commission adopted for 31 GHz, which seeks to fully accommodate the development of LMDS without interference from other licensees.[271] CellularVision opposes Sierra's request to reinstate all dismissed applications for the same reasons, arguing that the Commission should deny Sierra's request to permit any future growth under the existing 31 GHz point-to-point rules, based on the public's interest in LMDS as reflected in the record.[272]

160. Nevada DOT submits a request that suggests that, if the Commission does not grant the Sierra petition, the Commission should, in the alternative, reinstate the dismissed applications filed by Nevada DOT, as well as the Cities of Las Vegas and North Las Vegas (Cities), that implement the Las Vegas Valley Traffic Operational System based on installed 31 GHz equipment.[273] Nevada DOT requests that the Commission grant the applications on a temporary basis to allow the traffic system to proceed with the operational schedule as planned and use the installed 31 GHz equipment until an alternative communication method or technology is located, designed, and implemented. Nevada DOT sets out a 2-year time-line of activities to be accomplished before an alternative technology would be in place and requests that it be allowed to seek an extension of the current operations with any LMDS licensee that obtains access to the area. Nevada DOT proposes that the system be authorized to operate on a secondary basis, with the understanding that the system would cease and desist upon request from any LMDS provider that is adversely impacted. Nevada DOT argues that an exception to authorize the dismissed Nevada applications under its proposal would not interfere with the Commission's objectives in redesignating 31 GHz for LMDS, and would benefit the public safety and public investment in the fully developed traffic system maintained by Nevada DOT.

161. Parsons supports Nevada DOT's request, arguing that the purchase and installation of the 31 GHz equipment took place before the *Second Report and Order* and that either a permanent or an interim authorization of the Nevada applications would give Nevada

[271] TI Opposition to Petition at 8-10.

[272] CellularVision Opposition to Sierra's Petition at 6 n.20.

[273] Nevada DOT *ex parte* Letter of May 29, 1997.

DOT the time to design an alternative system to replace the installed equipment while providing the public the benefit of the current system.[274]

162. CellularVision opposes the request of Nevada DOT.[275] CellularVision argues that the grant of the dismissed Nevada applications is a grant of future point-to-point use under new licenses that is inconsistent with our determination to designate the 31 GHz band for LMDS and not encumber the spectrum with any additional licenses operating under the prior point-to-point rules. CellularVision also argues that many problems would result from authorization of the conditional licenses that Nevada DOT requests, including the potential interference with LMDS operations that adversely affects consumers and that involves the Commission in the procedures to require Nevada DOT to cease operations. Moreover, it argues that other parties can be expected to petition the Commission for similar relief.

a. Public Interest Issues

163. Based upon our review of the pleadings, we have decided to reconsider the actions taken in the *Second Report and Order* regarding the dismissed 31 GHz applications. As discussed more fully below, we conclude that the public interest will be served by our permitting certain secondary operations to LMDS under the procedures and operating requirements that we establish in this Order. Thus, we will permit the dismissed applicants to refile applications for authorization for the same private fixed 31 GHz services requested in their previously filed applications, but with the condition that such authorizations will be secondary to LMDS operations.

i. Basis of Secondary Operational Status for Dismissed Applicants

164. As we have discussed, there are several reasons to conclude that further growth and development of the 31 GHz services would be inconsistent with the public interest in designating the band for LMDS. These reasons include the need to fully accommodate the broadband potential of LMDS that could be delayed by a reduction in spectrum, the incompatibility of existing 31 GHz services with LMDS that could have a chilling effect on LMDS potential, and the uncertainties of the future growth of traffic systems under new technology developments.[276] Although we have discussed why new licensing of 31 GHz services is inconsistent with these findings, for the following reasons we do not find that

[274] Parsons Letter of May 28, 1997.

[275] CellularVision Consolidated Opposition to Nevada DOT's *ex parte* Letter at 6-8.

[276] *See* para. 153, *supra*.

permitting the 31 GHz services reflected in the dismissed applications to operate on a secondary basis would result in any such problems or otherwise adversely impact LMDS.

165. The dismissed applicants are few in number, and the scope of their services is identified in the applications that were dismissed. The majority of the applications seek authorization for the traffic system in the Las Vegas metropolitan area described by Nevada DOT and other commenters, which the Commission considered in the *Second Report and Order*. The remaining applications were filed primarily for other fixed microwave services by a few applicants, none of which has participated in this proceeding or been represented by any participating entity. Although all dismissed applicants will be given the opportunity to refile their dismissed applications modified for secondary status to LMDS, it is unclear how many of them will do so and how many would be granted a final authorization. Thus, the number of operations established by the result of our action in this Order may be narrower in scope than reflected by the dismissed applications.

166. The action we take in this Order also addresses the concern expressed by CellularVision that granting Nevada DOT's request to authorize the dismissed operations will result in other parties seeking similar relief, to the detriment of our goals for LMDS. We permit only those applicants with dismissed applications that were dismissed in the *Second Report and Order* to refile applications. Moreover, the dismissed applicants may only seek authorization secondary to LMDS in refiled applications and for the same stations and services contained in the dismissed applications. These limitations, we conclude, reduce uncertainties concerning future traffic system operations and prevents the type of system growth that could affect LMDS operations.

167. Furthermore, the 31 GHz services to be authorized under the refiled applications will be governed by the operational limitiations the Commission imposed on incumbent 31 GHz licensees in the *Second Report and Order*, with the exception of one provision. We will follow the request of Nevada DOT to authorize operations requested in the dismissed applications on a *secondary* basis to LMDS. Secondary operations are defined as "[r]adio communications which may not cause interference to operations authorized on a primary basis and which are not protected from interference from these primary operations."[277]

168. Thus, the new licenses based on the dismissed applications will be limited to secondary status to LMDS and will *not* be accorded any protection from harmful interference from LMDS.[278] The new licenses must accept any interference from LMDS and also may not interfere with LMDS operations. Although the Commission made an exception for non-LTTS

[277] Section 101.3 of the Commission's Rules, 47 C.F.R. § 101.3.

[278] *Second Report and Order*, 12 FCC Rcd at 12584 (para. 80 n.116).

incumbent licensees operating in the outer 150 megahertz segment and provided them with co-primary status with LMDS, we disagree with Sierra that the exception should apply to any new licenses based on the dismissed applications. The protection afforded to that class of licensees was based on the needs of existing licensees with well-established traffic control systems or private business services that had been licensed before LMDS without expectation of harmful interference from LMDS.

169. We disagree with CellularVision that authorizing the dismissed operations on a secondary basis to LMDS, as requested by Nevada DOT, would result in the myriad of problems that CellularVision claims.[279] Secondary status prevents any adverse impact on LMDS consumers from interference by the operations of the dismissed applicants. There is no basis for the view that Nevada DOT would not operate as authorized, which states that it will cease and desist upon request from any affected LMDS provider.[280] Instead, we find that imposing secondary status on licenses issued under our refiling provision would prevent the chilling effect or problems that the Commission expected to result from future incompatible incumbent services on the same band. As with the LTTS and certain other incumbent licensees, the dismissed licensees refiling the dismissed applications would have several possible options for resolving any frequency conflicts that arise with an LMDS system.[281] The secondary licensee could modify its system to eliminate interference to LMDS systems, acquire the use of spectrum from the LMDS licensee through geographic partitioning, transfer its operations to a different spectrum band or transmission medium, or lease service or transmission capacity from another carrier.

170. In addition, as with incumbent 31 GHz licenses, new 31 GHz licenses based on the dismissed applications would authorize services to the full extent permitted under their terms, but would *not* permit any expansion or increase in operations.[282] As the Commission explained, if the licensees are non-LTTS, they may be authorized either on a point-to-radius basis or a point-to-point basis. To stay within their existing service parameters, the radius licensees may add links, as long as they do not go outside the radius. The point-to-point

[279] CellularVision Consolidated Opposition to Nevada DOT's *ex parte* Letter at 7-8.

[280] Nevada DOT *ex parte* Letter of May 29, 1997, at 2.

[281] *Second Report and Order*, 12 FCC Rcd at 12585 (para. 90).

[282] *Id.* at 12590 (para. 102).